

**SENT VIA E-MAIL AND FedEx EXPRESS MAIL**

July 29, 2004

Wyoming Ecological Services Office  
U.S. Fish and Wildlife Service  
4000 Airport Parkway  
Cheyenne, Wyoming 82001  
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**Re: Comments on U.S. Fish and Wildlife Service's 90-Day Finding for Petitions to List the Greater Sage-Grouse as Threatened or Endangered**

Dear Gentlepeople:

American Lands Alliance, Sierra Club, Biodiversity Conservation Alliance, CalUWild, Center for Biological Diversity, Center for Native Ecosystems, Forest Guardians, Hells Canyon Preservation Council, Jackson Hole Alliance, The Larch Company, Oregon Natural Desert Association, Northwest Ecosystem Alliance, Sinapu, Western Watersheds Project, Wild Utah Project, Wildlands CPR, and Wyoming Outdoor Council respectfully submit the following comments on the U.S. Fish and Wildlife Service's (Service) positive 90-day finding for petitions to list the greater sage-grouse as threatened or endangered, and the Service's ongoing status review of the species. Please ensure these comments and attachments are included in the administrative record.

These comments incorporate the enclosed materials, including Dr. Clait Braun's critique of the Western Association of Fish and Wildlife Agencies' (WAFWA) new publication, *Conservation Assessment of Greater Sage-Grouse and Sagebrush Habitats*, and his review of the Western Governors' Association's *Conserving Greater Sage Grouse: A Compilation of Efforts Underway on State, Tribal, Provincial, and Private Lands*.

Public interest in sage grouse has markedly increased in recent years as a result of the hundreds of articles, radio programs and television news shows that have highlighted the species and its steady decline. Public and private research on sage grouse has increased, adding dozens of new scientific studies and peer reviewed articles to an already impressive canon of information on the species. Federal, state, and local agency officials, academics, and private interests have by their own admission engaged in an unprecedented effort to conserve sage grouse and its habitat. Despite all this new awareness and renewed commitment to conserving the grouse, the species' prospects have not improved and its future appears grim. The 28 authors and contributors to the new WAFWA assessment found little to be hopeful about: "we are not optimistic about the future of sage-grouse because of long-term population declines coupled with continued loss and degradation of habitat and other factors."<sup>1</sup>

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<sup>1</sup> Connelly, J. W., S. T. Knick, M. A. Schroeder, S. J. Stiver. 2004. Conservation assessment of greater sage-grouse and sagebrush habitats. Western Assoc. Fish and Wildl. Agencies. (June 2004).

As these comments note, the Bureau of Land Management, which controls half of the remaining sage grouse habitat, is still not fully engaged in conserving the species. State and local sage grouse conservation plans similarly lack the requisite prescriptions and funding to be effective. We also note that recent public pontifications by Secretary of Interior Norton that the U.S. Fish and Wildlife Service may not list the species in favor of unproven (and in some cases nonexistent) state and local conservation plans are both inappropriate and, as described below, without merit or legal standing.<sup>2</sup>

We therefore submit the following comments, organized in order of the five listing criteria prescribed by the Endangered Species Act.

#### **A. Continued Destruction, Modification, or Curtailment of Greater Sage Grouse Habitat or Range**

A species must be listed if it is endangered or threatened by “present or threatened destruction, modification, or curtailment of its habitat or range.” 50 C.F.R. § 424.11(c)(1); 16 U.S.C. § 1533(a)(1)(A). We and others have previously submitted detailed information in our listing petition and other documents on the myriad human activities and natural phenomena that have degraded or destroyed huge tracts of sage grouse habitat across its range, including domestic livestock grazing, range “improvements,” invasive species, soil erosion, agricultural conversion, western juniper or piñon-juniper invasion, water developments, logging, predation, noise, fire, mining and prospecting, off-road vehicles, military operations, oil and gas production (including coalbed methane development), climate change and global warming, air pollution, herbicides and pesticides, wind energy development, and the placement and construction of roads, fences, and utility corridors.

Reams of documents previously submitted to the Fish and Wildlife Service by commenters and others are more than sufficient to describe the many and pervasive impacts of the aforementioned impacts on sage grouse and their habitat. Rather than belabor the point here, we will limit our comments to providing new information on the impacts of coalbed methane development on sage grouse.

##### ***Coalbed Methane Development***

The Bureau of Land Management continues to aggressively pursue coalbed methane (CBM) development on both public lands and private lands where the agency administers publicly-owned subsurface mineral rights. Coalbed methane development is already occurring or scheduled for thousands of square miles of sage grouse habitat in the Jack Morrow Hills/Red Desert, Wyoming Great Divide/Rawlins District, and the Upper Green River Valley in Wyoming; and the Powder River Basin in Montana and Wyoming. Commenters recently received notice from the BLM that Anadarko Petroleum Corporation intends to conduct geophysical exploration for gas resources on BLM land in the Green River Resource Area, Rock Springs District, in southwest Wyoming.<sup>3</sup> Sage grouse are identified as a resource

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<sup>2</sup> See Crosson, J. “Rare sage grouse might not get U.S. protection.” Reuters (July 23, 2004).

<sup>3</sup> BLM, Rock Springs Field Office. Scoping Notice: West Flank (Wild Bunch) 3d Geophysical Project. (July 9, 2004).

management issue for the project. The BLM is also planning for oil and gas development on 1.8 million acres in the Vernal District in Utah,<sup>4</sup> and more draft resource management plans anticipated in coming months are expected to accelerate energy development in Utah's Price, Richfield, Moab, and Monticello Districts. All of these districts contain sage grouse habitat.

These plans only represent drilling on BLM lands or where the agency administers the subsurface mineral rights on private holdings. Oil and gas development is also occurring at a rapid pace on state and private lands in sage grouse range in Montana, Wyoming, Colorado and Utah. Energy companies have also recently begun to push for development on special landscapes (such as citizen-proposed Wilderness) and semi-protected areas that are part of the BLM National Landscape Conservation System. For example, the Bush Administration has opened most of the Canyons of the Ancients National Monument to oil and gas exploration (more than 85 percent of the monument is leased for exploration).<sup>5</sup> And, although President Clinton grandfathered in existing gas development in his proclamation designating the Upper Missouri River Breaks National Monument,<sup>6</sup> gas companies are now lobbying to explore more of the monument for potential development.<sup>7</sup> It is important to note that President Clinton specifically mentioned sage grouse conservation as a purpose for designating the Upper Missouri River Breaks National Monument.<sup>8</sup>

There is broad overlap between known oil and gas reserves and sage grouse habitat in the Intermountain West. In Wyoming, 26,000,000 acres (66.7 percent) of the state's remaining sage grouse habitat falls within areas of potential oil/gas development; 9,000,000 acres (28.1%) of Colorado's sage grouse habitat falls within areas of potential oil/gas development; 3,000,000 acres (43.5%) in Utah; and 1,700,000 acres (16.2%) in Montana.<sup>9</sup>

Some areas targeted for development are important habitat hubs that link grouse populations and refugia together. The loss of these hubs could prove devastating for grouse. Braun (2003) summarized the serious issue of fragmentation of sage grouse habitat in the Wyoming Great Divide:

Fragmentation of the habitats upon which this [Wyoming Great Divide] population depends will slowly unravel the entire presently linked sage-grouse population in Wyoming. This has already happened in most other states with disastrous results and has

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<sup>4</sup> See Vernal Resource Management Plan website, [www.vernalrmp.com](http://www.vernalrmp.com).

<sup>5</sup> The Wilderness Society. Wildlands and Energy Development (webpage), [www.wilderness.org/WhereWeWork/Colorado/energy.cfm?TopLevel=Energy#CAN](http://www.wilderness.org/WhereWeWork/Colorado/energy.cfm?TopLevel=Energy#CAN) (accessed July 27, 2004); BLM, Canyons of the Ancients National Monument. BLM Approves Gas Well in Canyons of the Ancients National Monument (press release). (Feb. 11, 2003). Available at [www.co.blm.gov/canm/canmpress/questarapproval.htm](http://www.co.blm.gov/canm/canmpress/questarapproval.htm).

<sup>6</sup> Establishment of the Upper Missouri River Breaks National Monument, Proclamation No. 7398, 66 Fed. Reg. 7359 (Jan. 17, 2001).

<sup>7</sup> The Wilderness Society. Upper Missouri Breaks National Monument (webpage), [www.wilderness.org/WhereWeWork/Montana/breaks.cfm](http://www.wilderness.org/WhereWeWork/Montana/breaks.cfm) (accessed July 28, 2004).

<sup>8</sup> Establishment of the Upper Missouri River Breaks National Monument, Proclamation No. 7398, 66 Fed. Reg. 7359 (Jan. 17, 2001).

<sup>9</sup> Trout Unlimited. (undated). Gas and Oil Development on Western Public Lands. Trout Unlimited. Arlington, VA. (unpaginated). (Report consists of set of maps; published c2003; available at <http://publiclands.tu.org/topic.asp?index=3&topic=23&id=2>).

already started in Wyoming—most noticeably at the periphery of the historical distribution. Once this continuity becomes fragmented, the overall distribution fabric is lost and sage-grouse populations will become disjointed and subject to greatly reduced abundance as well as local extirpation.<sup>10</sup>

Habitat fragmentation also appears to contribute to the species vulnerability to West Nile virus (see below).

- **The Bureau of Land Management has adopted inadequate lek buffers to protect sage grouse from disturbance from CBM exploration and development.**

Commenters have previously submitted information regarding the many deleterious affects of coalbed methane development on sage grouse (with references to Lyon and Anderson 2003, Braun 2003, Braun, et al. 2002, Connelly, et al. 2000, and Lyon 2000). Several studies cited, and additional government documents, warn against the negative affects of developing CBM resources near sage grouse leks and associated nesting habitat. Given the male sage grouse's renowned loyalty to their lek sites, and the female grouse's allegiance to nearby nesting habitat,<sup>11</sup> Braun (2003) recommended that surface activity be prohibited within 3 miles of leks to prevent disruption of courtship, and abandonment of leks and nesting habitat.<sup>12</sup> Connelly, et al. (2000) recommended that energy-related facilities should be located at least 3.2 km from active leks.<sup>13</sup> (Braun recommended larger 3-mile buffers based on the uncertainty of protecting sage grouse nesting habitat with smaller buffers). The Fish and Wildlife Service has also recommended that "no surface occupancy be allowed within two miles of active leks year-round to protect grouse."<sup>14</sup> But the Wyoming Department of Game and Fish found that 2-mile lek buffers were inadequate "for protection of essential nesting and early brood-rearing habitats."<sup>15</sup> Even the BLM has admitted that sage grouse would be impacted by CBM activities that occur within 2 miles of sage grouse leks or within winter range.<sup>16</sup>

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<sup>10</sup> Braun, C. E. 2003. Sage-Grouse scoping issues for revision of the BLM's Great Divide Resource Management Plan. Submitted to USDI-Bureau of Land Management, Rawlins Field Office, Feb. 14, 2003. Grouse, Inc. Tucson, AZ.

<sup>11</sup> See Lyon, A. G. 2000. The potential effects of natural gas development on sage grouse (*Centrocercus urophasianus*) near Pinedale, Wyoming. M.S. thesis, Univ. of Wyoming. Laramie, WY; R. A. Fischer, A.D. Apa, W.L. Wakkinen, K.P. Reese. 1993. Nesting-area fidelity of sage grouse in southeastern Idaho. *Condor* 95: 1038-1041; J.D. Berry and R.L. Eng. 1985. Interseasonal movements and fidelity to seasonal use areas by female sage grouse. *J. Wildl. Manage.* 49: 237-240.

<sup>12</sup> Braun, C. E. 2003. Sage-Grouse scoping issues for revision of the BLM's Great Divide Resource Management Plan. Submitted to USDI-Bureau of Land Management, Rawlins Field Office, Feb. 14, 2003. Grouse, Inc. Tucson, AZ.

<sup>13</sup> Connelly, J. W., M. A. Schroeder, A. R. Sands, and C. E. Braun. 2000. Guidelines to manage sage grouse populations and their habitats. *Wildlife Society Bull.* 28: 967-985.

<sup>14</sup> U.S. Fish and Wildlife Service. 2003. Species list letter to Malta BLM. (dated Aug. 19, 2003).

<sup>15</sup> Wyoming Game and Fish Department. 2002. Scoping comments to Bureau of Land Management, Rawlins Field Office, re. modification of the Great Divide Resource Management Plan. (Apr. 2, 2002). Cheyenne, WY.

<sup>16</sup> Montana Statewide Draft Oil and Gas Environmental Impact Statement and Amendment of the Powder River and Billings Resource Management Plans: 4-123.

All these expert studies and agency observations notwithstanding, the BLM has approved plans to develop CBM resources as close as ¼ mile to active sage grouse leks (e.g., *Final Statewide Oil and Gas Environmental Impact Statement and Proposed Amendment of the Powder River and Billings Resource Management Plan* and *Final Environmental Impact Statement and Proposed Plan Amendment for the Powder River Basin Oil and Gas Project*). Braun (2003) failed to understand how BLM arrived at its ¼-mile buffer: “the BLM has chosen 0.25-mile or 0.50-mile distances from active leks for avoidance of or restrictions on development even though the scientific literature indicates there should be no manipulation of sagebrush habitats within 2 miles of active leks. ***The 0.25-mile or 0.50-mile restrictions seem to have been created to justify existing practices and are not based on any reputable science***”<sup>17</sup> (emphasis original, citation omitted).

Now comes another study in Wyoming that indicates that sage grouse avoid using leks within proximity of a gas drilling rig or road. Researchers have found mean annual declines in use of leks by maximum numbers of male grouse within 3.2km of a drilling rig or within 500m of a road were 32 percent and 19 percent, respectively, compared to 2 percent average annual declines for leks located more than 6.5km (4.04 miles) from gas field disturbance (rigs or roads). The researchers summarized their findings by stating that the presence of a drilling rig within 5.5km (3.42 miles) directly and indirectly influence sage grouse.<sup>18</sup>

- **The Bureau of Land Management’s waiving of sage grouse stipulations for CBM exploration and extraction is compounding the negative impacts of development on sage grouse.**

Compounding problems caused by the BLM’s derisory lek buffers is the fact that the agency is granting almost all requests from CBM developers to waive permit stipulations that require them to avoid harassing the grouse during critical lekking and nesting periods in the spring. Sage grouse stipulations usually require that developers not explore or drill for CBM within a certain distance from an active lek (usually two miles) during a certain time of year or even a certain time of day (i.e., early morning, when grouse are on the leks). As of July 2004, the BLM Rawlins Field Office in Wyoming had granted 84 percent (32 of 38) of requests from industry to waive stipulations concerning sage grouse lek buffers since October 1, 2003.<sup>19</sup> (The Rawlins Field Office also granted 73 percent (8 of 11) of requests for waivers of stipulations concerning big game crucial winter range; 89 percent (31 of 35) of waivers to raptor nest buffer requirement; and 87 percent (20 of 23) of waivers to stipulations intended to protect mountain plover nesting habitat. Over all, 66 exceptions were granted and only 13 were denied.) The Pinedale Field Office has received 153 requests for exceptions to sage grouse stipulations since October 2003. Of these requests for waivers, 2 were withdrawn, 18

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<sup>17</sup> Braun, C. E. 2003. Sage-Grouse scoping issues for revision of the BLM’s Great Divide Resource Management Plan. Submitted to USDI-Bureau of Land Management, Rawlins Field Office, Feb. 14, 2003. Grouse, Inc. Tucson, AZ.

<sup>18</sup> Holloran, M. J. 2004. Sage-grouse response to natural gas field development in northwestern Wyoming. Page 16 *in* 24<sup>th</sup> Meeting of the Western Agencies Sage and Columbian Sharp-tailed Grouse Tech. Comm.; June 28-July 1, 2004; Wenatchee, WA. [Abstract].

<sup>19</sup> BLM, Rawlins Field Office. Wildlife, greater sage-grouse & raptor winter range exceptions to date: October 1, 2003, to September 30, 2004. Updated July 8, 2004. Available at [www.wy.blm.gov/rfo/wildlife/exceptionsfy04.htm](http://www.wy.blm.gov/rfo/wildlife/exceptionsfy04.htm).

requests were not required (the BLM determined the sage grouse stipulations did not apply to the activity proposed by the developer), and 133 were granted.<sup>20</sup>

These exceptions are not merely to explore for CBM or conduct other innocuous activities near a lek or nesting habitat. These companies are in fact requesting waivers from the 2-mile buffer requirement to drill wells, blade roads, lay pipe, and install equipment near leks and in nesting habitat from late winter, when the grouse would otherwise be strutting on the leks, to late spring, when hens are nesting and raising broods.<sup>21</sup> Even Questar Exploration and Production Company, a developer touted by some as ecologically enlightened, has recently applied to the BLM to waive stipulations that both parties agreed to in 2000 that prohibited the company from drilling year-round in critical wildlife habitat.<sup>22</sup>

As the largest manager of sage grouse habitat, the BLM has done little to conserve sage grouse in Wyoming and elsewhere. The BLM's lack of leadership is reflected in comments by the Wyoming Department of Fish and Game on the BLM's draft management plan for the Wyoming Great Divide. "Sage-grouse populations in the RMP area have demonstrated long-term declines under existing management, particularly in areas with heavy oil and gas development, and these declines would be expected to increase under continuation of existing management."<sup>23</sup> The Department has also stated that oil and gas development on BLM lands in the Pinedale area have affected sage grouse hens "despite [existing] protective stipulations;" the agency there recommended the BLM establish "maximum noise levels and ambient noise levels which would be allowed in occupied sage grouse habitats during strutting periods" along with maximum noise standards for "production equipment in gas fields, particularly compressors."<sup>24</sup>

## **B. Affects of Disease on Greater Sage Grouse**

"Disease" is a factor the Service must consider when evaluating species for listing under the ESA. 50 C.F.R. § 424.11(c)(3); 16 U.S.C. § 1533(a)(1)(C). Commenters previously submitted information about the possible effects of West Nile virus (WNV) on greater sage grouse in our listing petition in December 2003. Much new information has become available since then, and some of it validates our concerns that wastewater holding ponds from coalbed methane development in Montana and Wyoming may serve as breeding habitat for mosquitoes that carry the disease.

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<sup>20</sup> BLM, Pinedale Field Office. Sage grouse winter & nesting exceptions. Updated June 28, 2004. Available at [www.wy.blm.gov/pfo/wildlife/wild\\_sage\\_exc0204.htm](http://www.wy.blm.gov/pfo/wildlife/wild_sage_exc0204.htm).

<sup>21</sup> BLM, Pinedale Field Office. Sage grouse winter & nesting exceptions. Updated June 28, 2004. Available at [www.wy.blm.gov/pfo/wildlife/wild\\_sage\\_exc0204.htm](http://www.wy.blm.gov/pfo/wildlife/wild_sage_exc0204.htm).

<sup>22</sup> \_\_\_\_\_. BLM seeks comment on drilling proposal. Billings Gazette (July 21, 2004).

<sup>23</sup> Wyoming Department of Game and Fish. 2002. Spreadsheet of comments to Bureau of Land Management re. the Revised Management Situation Analysis for the Rawlins Resource Management Plan. Cheyenne, WY. (Oct. 22, 2002). (Note: spreadsheet title is "preliminary" Management Situation Analysis rather than "Revised," but cover letter WER2549b.doc mentions "revised").

<sup>24</sup> Wyoming Game and Fish Department. 2002. Scoping comments to Bureau of Land Management, Rawlins Field Office, re. modification of the Great Divide Resource Management Plan. (Apr. 2, 2002). Cheyenne, WY.

## *West Nile Virus*

Two new studies (Naugle, et al. 2004 and Walker, et al., *in press*) confirm our fears that WNV could have devastating effects on isolated populations of sage grouse and that CBM development is probably contributing to the spread of the disease in Montana and Wyoming. [*references enclosed*]

The CBM extraction process requires removal of large quantities of groundwater to liberate the methane. Methane extraction produces approximately 15,000 gallons of wastewater per day, per well, and significantly impacts underground aquifers.<sup>25</sup> Because the pumped water is usually loaded with dissolved solids and sodium (and numerous other pollutants), it is often stored in surface holding ponds for indefinite periods, rather than flushed down local streams. These holding ponds (and other naturally occurring and human-made surface waters, such as agricultural irrigation and livestock waters) may serve as breeding habitat for insect vectors that transmit WNV.<sup>26</sup>

The circumstantial evidence presented by Naugle, et al. (2004) and Walker (*in press*) is revealing. The statements speak for themselves:

Data where sage-grouse were monitored both before WNV (1998–2002) and in 2003 indicate that survival declined an average of 25%, whereas survival did not decline in the UGRB, a site where WNV has not been detected in sage-grouse.<sup>27</sup>

[W]e have no evidence that sage-grouse are able to survive WNV infection and develop immunity.<sup>28</sup>

The emergence of WNV further complicates the difficult task of conserving sage-grouse in western North America.<sup>29</sup>

If survival in our marked sample is representative of broader impacts of WNV, the virus may be an important new stressor on sage-grouse populations. Survival of adult females has been shown to be limiting in sage-grouse populations and declines due to WNV occurred in late summer when survival typically is High<sup>30</sup> (citations omitted).

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<sup>25</sup> Complaint for Declaratory and Injunctive Relief, American Lands, et al. v. BLM (Dist. Montana): 5.

<sup>26</sup> See Naugle, D. E., C. L. Aldridge, B. L. Walker, T. E. Cornish, et al. 2004. West Nile virus: pending crisis for greater sage-grouse. *Ecology Letters* 7: 704-714; see also Johnson, G. Oral report on mosquito surveillance in the Powder River Basin, Sheridan, WY. (Oct. 24, 2003). (abstract). Document obtained via FOIA request to Wyoming BLM; received by Biodiversity Conservation Alliance, Laramie, WY, July 21, 2004.

<sup>27</sup> Naugle, D. E., C. L. Aldridge, B. L. Walker, T. E. Cornish, et al. 2004. West Nile virus: pending crisis for greater sage-grouse. *Ecology Letters* 7: 711.

<sup>28</sup> Naugle, D. E., C. L. Aldridge, B. L. Walker, T. E. Cornish, et al. 2004. West Nile virus: pending crisis for greater sage-grouse. *Ecology Letters* 7: 711.

<sup>29</sup> Naugle, D. E., C. L. Aldridge, B. L. Walker, T. E. Cornish, et al. 2004. West Nile virus: pending crisis for greater sage-grouse. *Ecology Letters* 7: 711.

<sup>30</sup> Naugle, D. E., C. L. Aldridge, B. L. Walker, T. E. Cornish, et al. 2004. West Nile virus: pending crisis for greater sage-grouse. *Ecology Letters* 7: 711

Of immediate concern are the potential consequences of WNV for small populations of Gunnison sage-grouse in Colorado and Utah, and greater sage-grouse in California, Utah, Washington, North and South Dakota, Alberta, and Saskatchewan. In small, fragmented populations, stochastic events such as disease exacerbate risk of extinction due to the combined effect of demographic stochasticity, deterministic stressors, and inbreeding depression. Moreover, because small or isolated populations generally show reduced genetic variation, they are less likely to contain individuals resistant to emerging infectious disease<sup>31</sup> (citations omitted).

The Naugle, et al. study's test sites included 1) southeastern Alberta, (2) southern Phillips County, Montana, (3) the northern Powder River Basin of southeastern Montana and northeastern Wyoming, and (4) the southern Powder River Basin (SPRB) in northeastern Wyoming. It is important to note that the researchers chose the Upper Green River Basin as their control site, a large, intact habitat where WNV has not been detected in sage grouse and where coalbed methane development and other land uses are not as ubiquitous as on the sites where WNV was detected in grouse. This argues for protecting large, intact landscapes like the Upper Green Basin as refugia for sage grouse. Unfortunately, the Upper Green River Basin is due for major CBM development soon.<sup>32</sup>

The affects of WNV on sage grouse, and the potential contributions of CBM development to the spread of the disease, are not new information to BLM. Documents recently obtained from Wyoming BLM (which the agency resisted providing to requesters) indicate that BLM has known of the strong connection between WNV and CBM. One document stated that, "[i]n short, we have more mosquitos (an order of magnitude greater) in CBM than control sites and >90% of all mosquitoes regardless of capture site are *Culex* genus (the vector of interest)."<sup>33</sup> A second document by several of the authors of the Naugle, et al. study noted that "hen survival on the CBM site (15%) was dramatically lower than that on control sites (62%), primarily due to an outbreak of West Nile Virus restricted to the CBM site."<sup>34</sup> Finally, BLM provided a table listing the number and location of human cases of West Nile disease in Wyoming; BLM clearly knew that the second highest incidence of West Nile in humans came from Campbell County (70 cases) where coalbed methane development occurs on public and private lands.<sup>35</sup>

Walker, et al. (*in press*) noted that "[r]educed [sage grouse] survival due to the spread of WNV is disturbing because habitat loss and degradation already stress sage-grouse

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<sup>31</sup> Naugle, D. E., C. L. Aldridge, B. L. Walker, T. E. Cornish, et al. 2004. West Nile virus: pending crisis for greater sage-grouse. *Ecology Letters* 7: 711

<sup>32</sup> Israelsen, B. "Governor protests BLM sale of oil, gas leases in Wyoming." *Salt Lake Tribune* (June 9, 2004).

<sup>33</sup> Johnson, G. Oral report on mosquito surveillance in the Powder River Basin, Sheridan, WY. (Oct. 24, 2003). (abstract). Document obtained via FOIA request to Wyoming BLM; received by Biodiversity Conservation Alliance, Laramie, WY, July 21, 2004.

<sup>34</sup> Walker, B., D. Naugle, T. Rinkes. The response of sage grouse to coal-bed methane development and West Nile virus in the Powder River Basin: Is there a link? Abstract of presentation, Nov. 2003. Document obtained via FOIA request to Wyoming BLM; received by Biodiversity Conservation Alliance, Laramie, WY, July 21, 2004.

<sup>35</sup> Data table. Document obtained via FOIA request to Wyoming BLM; received by Biodiversity Conservation Alliance, Laramie, WY, July 21, 2004.

populations throughout the species' range.”<sup>36</sup> Naugle, et al. (2004) concluded that “if we are to prevent sage-grouse from going extinct on their remaining range, we must find a way to provide high-quality habitats that support robust, genetically diverse populations capable of withstanding stochastic disease events.”<sup>37</sup> Based on BLM's demonstrated indifference to the link between CBM and WNV, shrinking habitats and the specter of increased CBM development in sage grouse range, we request that sage grouse be listed as threatened or endangered to affect protection of the last large, high-quality habitats that Naugle, et al. call for.

### **C. Inadequacy of Existing Regulatory Mechanisms to Protect Greater Sage Grouse**

A species must be listed if it is endangered or threatened due to “the inadequacy of existing regulatory mechanisms.” 50 C.F.R. § 424.11(c)(4); 16 U.S.C. § 1533(a)(1)(D). This section presents new information on recent federal and state planning processes that impact sage grouse and sagebrush habitat. Commenters and others have often participated in these public decisionmaking processes as advocates for sage grouse and habitat conservation without success.

#### ***Bureau of Land Management – National Sage Grouse Strategy***

The Bureau of Land Management and its employees are engaged in sage grouse conservation planning at several levels, including developing a national BLM conservation strategy and individual state planning guidelines—most of which will not even be completed, let alone implemented, by December 2004 when the Service is required to issue its listing decision.<sup>38</sup>

BLM's most significant effort to date has been its *Draft National Sage-Grouse Habitat Conservation Strategy*. Commenters submitted lengthy comments on the draft strategy, noting its many deficiencies and urging the agency to assume a stronger leadership role in conserving sage grouse. [*comments enclosed*] The draft strategy appeared to be a political—rather than a professional biological—response to the listing threat, as it was very short and lacked any management prescriptions or instruction to anybody—BLM state offices, state agencies or the public—about what should be done to conserve grouse on BLM lands.

At least one of BLM's state partners was left confused by the draft strategy. The Oregon Department of Fish and Wildlife (ODFW) commented that “[t]he department is unclear how the draft BLM strategy fits within the planning effort identified through the joint [Western Association of Fish and Wildlife Agencies] MOUs. Since the MOUs specially state that efforts should be led by the state, it is unclear how BLM planning will be modified if in conflict with final state plans.” ODFW continued, “it is unclear if BLM expects the department to fully integrate the BLM draft *Conservation Strategy* into the state effort, or to

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<sup>36</sup> Walker, B. L., D. E. Naugle, K. E. Doherty, T. E. Cornish. 2004. From the field: Outbreak of West Nile virus in greater-sage grouse and guidelines for monitoring, handling, and submitting dead birds. *Wildl. Soc. Bull. (in press)*.

<sup>37</sup> Naugle, D. E., C. L. Aldridge, B. L. Walker, T. E. Cornish, et al. 2004. West Nile virus: pending crisis for greater sage-grouse. *Ecology Letters* 7: 711.

<sup>38</sup> See BLM. Sage Grouse Planning Dates & ESA Petition Process. Available at [www.blm.gov/nhp/spotlight/sage\\_grouse/timeline.pdf](http://www.blm.gov/nhp/spotlight/sage_grouse/timeline.pdf). (Accessed July 25, 2004).

merely view them as management recommendations for consideration.” ODFW also wondered why previously developed guidelines were not integrated into the draft strategy, and expressed concern that the BLM’s apparent parallel planning effort might complicate decision making in the future. “[H]aving separate planning processes can be confusing to current joint efforts and may lead to conflict in final decision making in the future.”<sup>39</sup>

While BLM and its partners sort out who is responsible for doing what to conserve sage grouse habitat, the agency has proposed new grazing rules that would weaken current rangeland regulations and harm sage grouse. [*see Oregon Natural Desert Association scoping comments enclosed*] The new rules would clarify who is eligible to hold a grazing permit or lease (likely limiting the privilege only to those who graze livestock); potentially allow ranchers to temporarily restrict public access to public lands; “streamline” the grazing decision appeal process; and create new “reserve common allotments” for permittees to use when their allotments are no longer capable of supporting livestock.<sup>40</sup> From an ecological perspective, reserve common allotments (also known as “grass banks”) are detrimental to land and watershed health because they actually encourage permittees to overstock and overuse their primary allotments, with the knowledge that there is always a grassbank available when they’ve overgrazed their allotment.<sup>41</sup>

It appears that Secretary Norton’s widely proclaimed “Four Cs” for natural resource management, “Communication, Consultation, and Cooperation – all in the service of Conservation,” are routinely forgotten or misapplied in the agency’s drive to facilitate resource extraction on public lands. Speaking to the Western Governors’ Association recently, Secretary Norton recently voiced her concerns not about the future of the grouse, but of the possible impacts of listing the species on resource industries: “Some say the grouse could become the spotted owl of the intermountain West. But the sage grouse occupies nearly 12 times as much land as the northern spotted owl.”<sup>42</sup> The Secretary then noted that “coal mining, natural gas production, electric transmission corridors and cattle grazing are all in the middle of the bird’s habitat.”<sup>43</sup> BLM’s endangered species coordinator for Wyoming was more blunt about his dislike for current trends: “I’d like to go on record as saying I hate the Endangered Species Act.”<sup>44</sup>

The Washington Post has reported on the Bush Administration’s general hostility to the Endangered Species Act,<sup>45</sup> while the Union of Concerned Scientists has issued a new report criticizing the administration for interfering in scientific decisionmaking.<sup>46</sup> Robert Paine, an

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<sup>39</sup> Anglin, R. Oregon Dept. Fish and Wildlife comments to Kathleen Clarke, BLM re. Draft Sage Grouse Conservation Strategy. (Oct. 31, 2003).

<sup>40</sup> See 68 Fed. Reg. 68452 (Dec. 8, 2003) and [www.eplanning.blm.gov/us\\_grazing/builds/build45/doc10/AppendixA.pdf](http://www.eplanning.blm.gov/us_grazing/builds/build45/doc10/AppendixA.pdf).

<sup>41</sup> See National Public Lands Grazing Campaign. “Publicly Owned Grassbanks: Just Another Bailout” (factsheet). Available at [www.publiclandsranching.org/htmlres/fs\\_grassbanks\\_no\\_good.htm](http://www.publiclandsranching.org/htmlres/fs_grassbanks_no_good.htm).

<sup>42</sup> Baker, D. Norton (AP). Sage grouse listing would hurt energy production. Billings Gazette (June 23, 2004).

<sup>43</sup> Baker, D. Norton (AP). Sage grouse listing would hurt energy production. Billings Gazette (June 23, 2004).

<sup>44</sup> Gruver, M. “Endangered Species Act takes stage at BLM conference.” Casper Star-Tribune (June 23, 2004).

<sup>45</sup> Eilperin, J. “Endangered Species Act’s protections are trimmed.” Washington Post (July 4, 2004): A01.

<sup>46</sup> Fox, M. “U.S. science policy swayed by politics, group says.” Reuters (July 9, 2004). See also Glanz, J. “Scientists accuse White House of distorting facts.” New YorkTimes (Feb. 18, 2004).

ecologist at the University of Washington who chaired an advisory panel on endangered salmon and trout, said that the panel “was warned by the government to remove facts that undermined policy.”<sup>47</sup> More than 4,000 scientists, including 48 Nobel laureates, have joined together to call for “restoration of scientific integrity in federal policymaking.”<sup>48</sup> We certainly hope that politics will not affect the Service’s decision on listing the greater sage grouse.

### ***Bureau of Land Management/Forest Service – Resource Management Plans***

Current BLM and Forest Service resource management planning processes fail to protect important sage grouse habitat across the West. In addition to aggressive energy development on sage grouse habitat in Montana, Wyoming and Utah, following are examples of other draft or recently completed federal management plans in these and other states that prioritize resource use over sage grouse conservation.

- **Montana**

Conservation organizations recently sued the Beaverhead-Deerlodge National Forest to stop plans to implement the Antelope Basin/Elk Lake Allotment Management Plan update in the Madison Ranger District of the Beaverhead-Deerlodge National Forest. The AMP approves continued cattle grazing across approximately 48,000 acres of the Beaverhead-Deerlodge National Forest, west of Yellowstone Park and north of the Redrocks Lake National Wildlife refuge in southwestern Montana.

Antelope Basin is critical wildlife habitat and a corridor for elk, mule deer, moose, antelope, bighorn sheep, grizzly bears and other wildlife that migrate to and from Yellowstone Park. It was also habitat for sage grouse. Dr. Sara Jane Johnson notes that “the Forest Service has been converting the sagebrush-grassland habitat in Antelope Basin to grazing pasture since the 1960's by spraying herbicides and burning; the Forest Service eliminated nearly 75% of the sagebrush habitat in the area. Without habitat the sage grouse is going to be driven to extinction.”<sup>49</sup>

Forest Service monitoring data reveals a steep decline in local sage grouse populations. In 1963, 43 birds were found; in 1969, 27 were counted; in 1986, 7 were observed; in 1987, 4 were counted, in 1988, 3 were observed and none have been found since. However two birds were illegally killed in the Antelope Basin area in 2002.<sup>50</sup>

- **Idaho**

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<sup>47</sup> Fox, M. “U.S. science policy swayed by politics, group says.” Reuters (July 9, 2004).

<sup>48</sup> Fox, M. “U.S. science policy swayed by politics, group says.” Reuters (July 9, 2004).

<sup>49</sup> Native Ecosystems Council and Alliance for the Wild Rockies. Conservation Groups Sue to Protect Sage Grouse, Arctic Grayling and other Wildlife from Over Grazing (press release). (June 29, 2004).

<sup>50</sup> Native Ecosystems Council and Alliance for the Wild Rockies. Conservation Groups Sue to Protect Sage Grouse, Arctic Grayling and other Wildlife from Over Grazing (press release). (June 29, 2004).

Examples from Idaho indicate that the BLM is managing special areas like any other public lands (see above note on threats of coalbed methane development in Upper Missouri River Breaks National Monument). The recently released *Draft Management Plan/EIS for Craters of the Moon National Monument and Preserve* fails to restrict livestock grazing that has degraded sage grouse habitat in the monument for decades. Commenters have previously submitted information on the harmful effects of livestock grazing on sage grouse. It is also important to note that President Clinton specifically mentioned protecting sage grouse habitat in his proclamation as a purpose for expanding Craters of the Moon National Monument.<sup>51</sup>

Conservationists note that 30 percent of the BLM-managed lands in the monument are in such poor condition that BLM proposes massive "treatments"—herbicide applications, mechanical treatments, prescribed fire and seedings—to restore the ecosystem (for livestock grazing?). But all four agency alternatives in the draft plan/EIS make no significant changes in grazing, the historic cause of habitat degradation in the monument. Plus, the preferred alternative not only keeps all existing roads, trails and two tracks open, it allows upgrading of many roads currently in "primitive" zones.

Conservation organizations have also recently sued the BLM for increasing grazing over past levels on the Laidlaw Park area in the monument, important sage grouse habitat.<sup>52</sup>

Finally, Idaho sporting organizations have recently completed an analysis of grazing allotments in Owyhee County, Idaho. [*analysis enclosed*] This is prime sage grouse country, some of which is targeted by some conservation organizations and some of the Idaho congressional delegation for protection as wilderness.<sup>53</sup> Field researchers saw sage grouse and sage grouse sign on many of the allotments they surveyed. They concluded in their report that their sample of 18 pastures “found most pastures were overgrazed and outside the legal requirements for managing livestock grazing established by the Owyhee RMP and the Idaho Rangeland Standards and Guidelines for Grazing Management. . . . It was obvious that BLM did little to prevent the observed cases of overgrazing on these allotments. The BLM needs to address its responsibilities and place priority on restoring rangeland health by properly managing livestock grazing.”<sup>54</sup>

- **Oregon**

After six years of development and multiple drafts, the BLM finally released its Southeast Oregon Resource Management Plan for the BLM Vale and Burns Districts in 2001. The SEORMP is intended to guide the BLM’s management of 4.6 million acres of high desert wildlands in southeast Oregon for the next 15 to 20 years. Conservation organizations initially filed an administrative protest against the plan, and then later sued BLM for failure

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<sup>51</sup> Boundary Enlargement of the Craters of the Moon National Monument, Proclamation No. 7373, 65 Fed. Reg. 69221, 69222 (Nov. 9, 2000).

<sup>52</sup> Western Watersheds Project. Appeal of Field Manager’s Decision, dated February 18, 2004, Laidlaw Park Allotment, Shoshone Field Office EA ID 076-2003-0014. Decision for Permittee: Lava Lake Land and Livestock. (Mar. 23, 2004).

<sup>53</sup> See The Owyhee Initiative (website), [www.owyheeinitiative.org](http://www.owyheeinitiative.org). (Accessed July 28, 2004).

<sup>54</sup> Ada County Fish and Game League, Idaho Bird Hunters, Idaho Wildlife Federation. 2004. Grazing use on public lands in Owyhee County, Idaho. (April 2004).

to account for impacts of resource use and management activities on the landscape, including sage grouse habitat.

According to the conservation organizations, the SEORMP's deficiencies include a failure to consider an adequate range of alternatives with respect to livestock grazing and off-road vehicle use; a failure to perform and rely upon legally required resource inventories and assessments; a failure to manage the public lands according to the principles of multiple use and sustained yield; a failure to assess the suitability of the public lands for grazing; a failure to establish general program constraints and standards for grazing; a failure to protect against "unnecessary or undue degradation" of public lands and resources; and a failure to determine, as required by the TGA and FLPMA, whether the public lands are, or remain, "chiefly valuable" for livestock grazing.<sup>55</sup> Biologist Kathleen Fite's declaration for this case is particularly helpful to understand the impacts the SEORMP would have on sage grouse habitat. [*declaration enclosed*]

- **Wyoming**

In addition to its refusal to apply current information about the effects of CBM development on sage grouse (e.g., size of lek buffers), Wyoming BLM has also been advised that it has permitted grazing allotments to be overstocked across the state due to failure to incorporate the latest information about rangelands livestock grazing in its grazing management plans. [*see Western Watersheds Project report enclosed*]

The recently released *Final EIS Jack Morrow Hills Coordinated Activity Plan/Proposed Green River Resource Management Plan Amendment* maintains livestock grazing and increases energy development in prime sage grouse habitat.

### ***State/Local Sage Grouse Conservation Plans/Working Groups***

Much of BLM's strategy for protecting sage grouse relies upon state fish and wildlife agencies and local working groups to develop plans to protect local sage grouse populations from further decline. Commenters previously provided comments on the many problems inherent in state and local conservation plans (*see enclosed comments on BLM draft sage grouse strategy*), including our concerns that BLM's reliance on state and local working groups to conserve and recover sage grouse populations on private, state and federal lands may in fact exacerbate problems for grouse. (Indeed, how are 64 state and local working groups supposed to manage a species that naturally ranges over parts of 11 western states 2 Canadian provinces?) Also, as noted above, BLM multi-level and parallel strategies appear to be confusing the agency's conservation partners.

We reject claims by the Western Governors' Association (WGA) and others that current and future state and local sage grouse conservation planning efforts are sufficient to protect greater sage grouse. These comments incorporate Dr. Clait Braun's review of the Western Governors' Association summary of state and local planning efforts, "Conserving Greater

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<sup>55</sup> Brief, Oregon Natural Desert Association v. Bureau of Land Management, memorandum in support of plaintiff's dispositive motion. (D. Or.). Case no. 03-CV-1017-JE.

Sage Grouse: A Compilation of Efforts Underway on State, Tribal, Provincial, and Private Lands,” in which he criticizes state and local conservation plans for being mostly a lot of research projects, and a few unfunded, voluntary guidelines that don’t go far enough to conserve grouse.

In the executive summary of its report peddling the promise of current state and local efforts to protect sage grouse, the WGA especially highlighted the number of acres in sage grouse range that are enrolled in the federal Conservation Reserve Program (CRP).<sup>56</sup> As an example of how misinformed the WGA report is, we note here that the Department of Agriculture routinely authorizes emergency grazing of CRP acreage in times of drought. It did so again in 2004.<sup>57</sup> Commenters have previously submitted information on the effects of livestock grazing on sage grouse. Since the current drought in the West is not due to break any time soon (see below), we can expect the Department of Agriculture to continue to open CRP acreage to grazing in the future.

The plans described by WGA, as inadequate as they are, will require funding to conduct research and implement conservation projects. While state fish and wildlife agency budgets have fared well in recent years, those agencies only represent a small part of any state’s total budget and they do not have the funds to cover the additional millions of dollars needed to implement state and local sage grouse conservation plans. The National Conference of State Legislatures recently reported that states face a collective budget gap of \$36 billion this year (which does not include California),<sup>58</sup> so state and local sage grouse working groups cannot expect states to cover the full costs of their conservation plans. (California was not included in the NCSL survey, which had to borrow \$15 billion dollars this year to balance its budget. Ironically, Wyoming is one of few states in the nation that enjoys a large budget surplus, but that income comes from royalties on oil and gas development in sage grouse habitat.)

Congress also appears unlikely to cover all the costs of the state and local conservation plans. While the Senate Interior Appropriations Subcommittee has approved a FY 2005 Interior Appropriations bill that includes \$75 million for state wildlife grants, the House of Representatives only authorized \$67.5 million. Both amounts are less than the \$100 million appropriation requested by the leading wildlife agency lobbying organization.<sup>59</sup>

- **Example: Nevada’s Management of Off-road Vehicles**

Recent events in Nevada demonstrate the futility of individual states trying to restrict harmful activities that affect sensitive species on public and private lands without the authority of a higher mandate such as an ESA-listed species. In this case off-road vehicles are the environmental irritant. Off-road vehicle use has exploded in the West in recent years, and

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<sup>56</sup> Western Governors’ Association. 2004. Conserving the Greater Sage Grouse: A Compilation of Efforts Underway on State, Tribal, Provincial and Private Lands: executive summary (see also p. 2).

<sup>57</sup> \_\_\_\_\_. “Emergency grazing rules approved for livestock.” Washington Post (June 25, 2004): A06.

<sup>58</sup> Harrie, D. “Update: State budgets improving, NCSL report says.” Salt Lake Tribune (July 20, 2004). See National Conference of State Legislatures. “State Budgets Rebounding, But Tough Road Looms Ahead for Lawmakers (press release). NCSL. Salt Lake City, UT. (July 20, 2004).

<sup>59</sup> See Teaming with Wildlife website, [www.teaming.com/index.htm](http://www.teaming.com/index.htm).

public lands are a favorite destination of off-road vehicle enthusiasts. Commenters previously submitted information on the harmful impacts of ORV use on sage grouse habitat.

The BLM manages 178,806,364 million acres of public lands in the West (excluding Alaska).<sup>60</sup> Nearly 94 percent of this land is open to some form of off-road vehicle use.<sup>61</sup> In Utah, 94 percent of BLM land -- more than 22 million acres -- is open to dirt bikes, all-terrain vehicles and jeeps. In Montana and Nevada, off-road vehicles have access to 99 percent of all BLM land. Unfortunately, evidence clearly indicates that off-road vehicles are venturing into areas where prohibited by federal law or local regulation, such as in some BLM wilderness study areas, because the agency has not the resources to enforce area closures.<sup>62</sup>

In December 2003, at the request of many Nevada sportsmen, the Nevada Board of Wildlife Commissioners considered a draft regulation that would control hunting from an off-road vehicle while away from established roadways. The new regulation was intended to prevent ORV users from “pioneering” new roads into wildlife habitat by simply requiring that hunters stay within 25 yards of an existing road while pursuing their prey.<sup>63</sup> User created roads, which destroy habitat, cause soil erosion, and spread weeds, have become increasingly common in the sagebrush steppe. One BLM study found off-road vehicles have created 15 to 20 miles of new road annually in recent years in Duck Creek Basin near Ely.<sup>64</sup>

Unfortunately, ORV and hunting groups vigorously protested the Nevada Wildlife Commission’s proposed rule and forced the commissioners to table the proposal. The Director of the Nevada Department of Wildlife then stated that he didn’t believe that the commission had authority to enact meaningful regulation,<sup>65</sup> suggesting an unwillingness or inability at even the highest level of the department to address the impacts of ORVs on wildlife resources.

***U.S. Fish and Wildlife Service may not rely on voluntary, unfunded or speculative conservation plans to deny sage grouse listing.***

Secretary Norton recently stated that “[i]f the states can show that the bird population can recover and was not likely to plummet” then the state programs could be sufficient reason for the Service to not list the grouse. The Secretary’s statement, an obvious effort to prejudice the Service’s biological determination of whether to list sage grouse under the ESA, was both inappropriate and incorrect.

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<sup>60</sup> Government Accounting Office. 1996. Land ownership: information on acreage, management and use of federal and other lands. RCED-96-40. Washington, DC: 24-25

<sup>61</sup> Stritholt, J. R., N. L. Staus, M. D. White. 2000. Importance of Bureau of Land Management roadless areas in the western U.S.A. Conservation Biology Institute. Corvallis, OR.

<sup>62</sup> The Wilderness Society. (undated). Taken for a Ride: How Off-Road Vehicles Damage the Nation’s Wildest Lands. The Wilderness Society. Washington, DC. Available at [www.wilderness.org/Library/Documents/upload/Taken-For-A-Ride-Complete-report.pdf](http://www.wilderness.org/Library/Documents/upload/Taken-For-A-Ride-Complete-report.pdf).

<sup>63</sup> Griffith, M. “Westerners clash over use of ATVs while hunting.” Salt Lake Tribune (Mar. 28 2004).

<sup>64</sup> Griffith, M. “Westerners clash over use of ATVs while hunting.” Salt Lake Tribune (Mar. 28 2004).

<sup>65</sup> Blair, J. “Wildlife officials balk at setting ATV restrictions.” Elko Free Daily Press (June 29, 2004).

Several courts have held that future conservation efforts by federal and state agencies do not justify further delay in listing imperiled species. First, district courts struck down FWS's reliance on possible future actions of the U.S. Forest Service as a basis for not warranted determinations for both the Alexander Archipelago wolf (*Canis lupus ligoni*) (Biodiversity Legal Foundation v. Babbitt, 943 F.Supp. 23 (D.D.C.1996) and the Queen Charlotte goshawk (*Accipiter gentilis laingi*) (Southwest Center for Biological Diversity v. Babbitt, 939 F.Supp. 49 (D.D.C.1996)). The U.S. District Court in Texas also rejected an FWS determination that listing was not warranted for the Barton Springs Salamander (*Eurycea sosorum*) because of a conservation agreement between FWS and Texas state agencies (Save Our Springs Legal Defense Fund, Inc. v. Babbitt, Civ No. 96-168-CA (W.D.Tex., Mar 25, 1997)). The court held that the efficacy of the conservation agreement was speculative (Id. at 9).

The U.S. District Court in Oregon went one step further in 1998 by holding that the National Marine Fisheries Service could rely neither on future or voluntary conservation measures within the Oregon Coastal Salmon Restoration Initiative Plan to deny listing of the Oregon Coast evolutionarily significant unit of coho salmon (*Oncorhynchus kisutch*) (Oregon Natural Resources Council et al. v. Daley et al., 6 F.Supp.2d 1139 (D.Or.1998)). Because they are unenforceable, the court maintained that voluntary conservation measures, like future measures, "should be given *no* weight in the listing decision" (emphasis added) (Id. at 1155).

Similarly, the Oregon district court rejected FWS's reliance on the Northwest Forest Plan as a justification for finding that the bull trout (*Salvelinus confluentus*) faced only a "moderate" threat and was therefore warranted but precluded (Friends of Wild Swan, Inc. v. U.S. Fish and Wildlife, 945 F.Supp. 1388 (D.Or.1996)). The court stated that FWS "cannot rely upon its own speculations as to the future effects of another agency's management plans to put off listing a species" (Id. at 1398).

The new Service's policy for evaluating conservation measures when making listing decisions ("PECE" policy) entails consideration of two factors: 1) the certainty that the conservation measures will be implemented; and 2) the certainty that these measures will be effective (68 Fed. Reg. 15100, 15101). As noted above and as described in Braun's comments, there is little doubt that state and local conservation efforts will not be implemented as promised by the Western Governors' Association and as hoped for by Secretary Norton. Therefore, the Service cannot consider these voluntary, unfunded and speculative plans as adequate existing regulatory mechanisms in its decision to list the sage grouse.

#### **D. Other Natural or Man-made Factors Affecting the Continued Existence of Greater Sage Grouse**

In addition to information previously submitted by commenters concerning "other natural or manmade factors affecting" the continued existence of sage grouse (50 C.F.R. § 424.11(c)(5); 16 U.S.C. § 1533(a)(1)(E)), following is new information on drought and sage grouse.

## ***Drought***

The current drought in the West has created new and emerging problems in the sagebrush steppe. More than 197,000 acres of sagebrush in the Uinta Basin in Utah has died or was stressed from drought in 2003,<sup>66</sup> rendering it uninhabitable to sage grouse and other wildlife. At least thirty percent of sagebrush in the Gunnison Basin in Colorado—the last, best habitat for Gunnison sage grouse—died from extended drought in 2003.<sup>67</sup> Drought has affected sagebrush habitats in most of the West, including Utah, Montana, Wyoming, Colorado, Nevada and Oregon.

While the Intermountain Region of the Forest Service continues to ignore the citizen petition to promulgate new drought rules, new information indicates that the West may be suffering its worst drought in centuries. While measuring the history of climate fluctuations on water resources in the Colorado River Basin (representing a large part of the Forest Service Intermountain Region), U.S. Geological Survey scientists recently concluded that “the current drought may be comparable to or more severe than the largest-known drought in 500 years.”<sup>68</sup> [*reference enclosed*]

While commenters have previously submitted information on the deleterious affects of drought on sage grouse and sagebrush habitat in their listing petition, additional information from a new study in Idaho has become available on the impacts of drought especially on sage grouse chicks. Researchers there studied chick survival between 1999-2002 and discovered that chick survival was markedly higher in 2002 (35% survival rate) than during the previous three years (20-25%).<sup>69</sup> The researches concluded that results of their study “indicate that greater sage-grouse populations are negatively influenced by drought conditions through reduced chick survival, likely mediated though reduced vegetative cover.”<sup>70</sup>

## **E. Importance of Protecting Greater Sage Grouse**

Greater sage grouse are a useful, if imperfect, umbrella species for the sagebrush steppe ecosystem.<sup>71</sup> An “umbrella species” is defined as one “whose conservation confers a

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<sup>66</sup> Utah Division of Wildlife Resources. “Biologists Concerned with Sagebrush Die-off in Northeastern Utah” (press release) (Aug. 7, 2003).

<sup>67</sup> BLM biologist (name withheld), pers. comm. (Sept. 22, 2003).

<sup>68</sup> Webb, R. H., G. J. McCabe, R. Hereford, C. Wilkowske. 2004. Climate fluctuations, drought, and flow in the Colorado River. USGS Fact Sheet 3062-04. USDI-U.S. Geological Survey. (June 2004). This study was recently removed from the USGS website “while the authors conduct further scientific review.” It is currently available from [www.publiclandsranching.org/htmlres/cows\\_and\\_drought.htm](http://www.publiclandsranching.org/htmlres/cows_and_drought.htm).

<sup>69</sup> Burkepile, N. A., K. P. Reese, J. W. Connelly. 2004. Modeling greater sage-grouse survival in southeast Idaho. Page 8 *in* 24<sup>th</sup> Meeting of the Western Agencies Sage and Columbian Sharp-tailed Grouse Tech. Comm.; June 28-July 1, 2004; Wenatchee, WA. [Abstract].

<sup>70</sup> Burkepile, N. A., K. P. Reese, J. W. Connelly. 2004. Modeling greater sage-grouse survival in southeast Idaho. Page 8 *in* 24<sup>th</sup> Meeting of the Western Agencies Sage and Columbian Sharp-tailed Grouse Tech. Comm.; June 28-July 1, 2004; Wenatchee, WA. [Abstract].

<sup>71</sup> Wisdom, M. J., L. H. Suring, M. M. Rowland, R. J. Tausch, R. F. Miller, L. Schueck, C. Wolff Meinke, S. T. Knick, B. C. Wales. 2003. A prototype regional assessment of habitats for species of conservation concern in the Great Basin Ecoregion and State of Nevada. Version 1.1, September 2003, unpublished report on file at USDA Forest Service, Pacific Northwest Research Station, 1401 Gekeler Lane, La Grande, OR 97850; T. Rich and B.

protective umbrella to numerous co-occurring species.”<sup>72</sup> Functionally, an umbrella species should have the following characteristics: “they represent other species, their biology is well known, they are easily observed or sampled, they have large home ranges, are migratory, and are persistent.”<sup>73</sup>

Rich and Altman (2001) note that sage grouse fit the description of an umbrella species:

Sage grouse require expanses of sagebrush habitat with a diverse and substantial understory of native grasses and forbs. Their requirements for lek sites, nesting, brood-rearing, and wintering habitat are reasonably well understood. Further, they need large blocks of sagebrush, as much as 2,500 square miles per population, in appropriate spatial mixes across the landscape.

Based on Rich and Altman’s description, sage grouse are an excellent umbrella species for species classified as “sagebrush species” with ranges that fall within or mostly overlap the grouse’s range. These include: Wyoming ground squirrel (*Spermophilus elegans*) (100% overlap),<sup>74</sup> sage sparrow (*Amphispiza belli*) (99%),<sup>75</sup> Brewer’s sparrow (*Spizella breweri*) (94%),<sup>76</sup> sage thrasher (*Oreoscoptes montanus*) (94%),<sup>77</sup> pygmy rabbit (*Brachylagus idahoensis*) (54%),<sup>78</sup> and vesper sparrow (*Pooecetes gramineus*) (52%)<sup>79</sup> (percentages for the latter two species apply to the Great Basin only). When measuring “habitat overlap” (i.e., overlap of a species’ habitat associations with the habitat associations of sage grouse), the

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Altman. 2001. Under the sage umbrella: will management for sage grouse protect other birds and animals in the sagebrush steppe? *Bird Conservation* 14: 10; T. D. Rich, M. J. Wisdom, V. A. Saab. 2003. Conservation of sagebrush steppe birds in the interior Columbia Basin. Proc. of the Third International Partners in Flight Conference; Mar. 20-24, 2002; Asilomar, CA.

<sup>72</sup> Fleishman, E., R. B. Blair, D. D. Murphy. 2001. Empirical validation of a method for umbrella species selection. *Ecol. Appl.* 11: 1489.

<sup>73</sup> Rich, T. and B. Altman. 2001. Under the sage umbrella: will management for sage grouse protect other birds and animals in the sagebrush steppe? *Bird Conservation* 14: 10

<sup>74</sup> Wisdom, M. J., L. H. Suring, M. M. Rowland, R. J. Tausch, R. F. Miller, L. Schueck, C. Wolff Meinke, S. T. Knick, B. C. Wales. 2003. A prototype regional assessment of habitats for species of conservation concern in the Great Basin Ecoregion and State of Nevada. Version 1.1: 8-14 (Sept. 2003). Unpublished report on file at USDA Forest Service, Pacific Northwest Research Station, 1401 Gekeler Lane, La Grande, OR 97850.

<sup>75</sup> Rich, T. and B. Altman. 2001. Under the sage umbrella: will management for sage grouse protect other birds and animals in the sagebrush steppe? *Bird Conservation* 14: 10

<sup>76</sup> Rich, T. and B. Altman. 2001. Under the sage umbrella: will management for sage grouse protect other birds and animals in the sagebrush steppe? *Bird Conservation* 14: 10

<sup>77</sup> Rich, T. and B. Altman. 2001. Under the sage umbrella: will management for sage grouse protect other birds and animals in the sagebrush steppe? *Bird Conservation* 14: 10

<sup>78</sup> Wisdom, M. J., L. H. Suring, M. M. Rowland, R. J. Tausch, R. F. Miller, L. Schueck, C. Wolff Meinke, S. T. Knick, B. C. Wales. 2003. A prototype regional assessment of habitats for species of conservation concern in the Great Basin Ecoregion and State of Nevada. Version 1.1: 8-14 (Sept. 2003). Unpublished report on file at USDA Forest Service, Pacific Northwest Research Station, 1401 Gekeler Lane, La Grande, OR 97850.

<sup>79</sup> Wisdom, M. J., L. H. Suring, M. M. Rowland, R. J. Tausch, R. F. Miller, L. Schueck, C. Wolff Meinke, S. T. Knick, B. C. Wales. 2003. A prototype regional assessment of habitats for species of conservation concern in the Great Basin Ecoregion and State of Nevada. Version 1.1: 8-14 (Sept. 2003). Unpublished report on file at USDA Forest Service, Pacific Northwest Research Station, 1401 Gekeler Lane, La Grande, OR 97850.

percentages increase for two of these species: pygmy rabbit (68%) and vesper sparrow (63%) (Great Basin only).<sup>80</sup>

Species of related “shrubland” and “sagebrush-woodland” guilds also have habitats that overlap sage grouse habitat in the Great Basin: white-tailed jackrabbit (*Lepus townsendii campanius*) (71%), Merriam’s shrew (*Sorex merriami*) (62%), green-tailed towhee (*Pipilo chlorurus*) (60%), sagebrush vole (*Lemmiscus curtatus*) (59%), northern grasshopper mouse (*Onychomys leucogaster*) (50%) and sagebrush lizard (*Sceloporus graciosus*) (48%). Habitat generalists, such as Brewer’s blackbird (*Euphagus cyanocephalus*) (58%) and Ferruginous hawk (*Buteo regalis*) (49%), also use habitat in sage grouse range.<sup>81</sup>

While protecting sage grouse would also benefit a suite of other species, scientists note that ideal sage grouse habitat is not preferable for every sagebrush species.<sup>82</sup> For example, some species might require different vegetative composition or structure than sage grouse prefer. This argues for protecting large sagebrush reserves for sage grouse and other species that include a mosaic of different habitats of varying successional stages.<sup>83</sup>

Listing sage grouse as threatened or endangered would help drive protection of these landscapes, and perhaps prevent other species from being listed. Commenters previously submitted additional information on the value of sage grouse as both an umbrella and indicator species for sagebrush steppe habitat. Many of the species that would benefit from sage grouse listing are also in decline.<sup>84</sup> By listing sage grouse, the Service would both help protect an ecosystem and avoid having to process dozens of other listing petitions to list the obligate species that live there. It would also further the purposes of the Endangered Species Act which is, among other things, to protect the “ecosystems upon which endangered species and threatened species depend.” 16 U.S.C. § 1531(b).

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<sup>80</sup> Wisdom, M. J., L. H. Suring, M. M. Rowland, R. J. Tausch, R. F. Miller, L. Schueck, C. Wolff Meinke, S. T. Knick, B. C. Wales. 2003. A prototype regional assessment of habitats for species of conservation concern in the Great Basin Ecoregion and State of Nevada. Version 1.1: 8-15 (Sept. 2003). Unpublished report on file at USDA Forest Service, Pacific Northwest Research Station, 1401 Gekeler Lane, La Grande, OR 97850.

<sup>81</sup> Wisdom, M. J., L. H. Suring, M. M. Rowland, R. J. Tausch, R. F. Miller, L. Schueck, C. Wolff Meinke, S. T. Knick, B. C. Wales. 2003. A prototype regional assessment of habitats for species of conservation concern in the Great Basin Ecoregion and State of Nevada. Version 1.1: 8-14 - 15 (Sept. 2003). Unpublished report on file at USDA Forest Service, Pacific Northwest Research Station, 1401 Gekeler Lane, La Grande, OR 97850.

<sup>82</sup> Personal comm., Aaron Holmes, PRBO Conservation Science, July 23, 2004; T. Rich and B. Altman. 2001. Under the sage umbrella: will management for sage grouse protect other birds and animals in the sagebrush steppe? Bird Conservation 14: 10. See also Wisdom, M. J., L. H. Suring, M. M. Rowland, R. J. Tausch, R. F. Miller, L. Schueck, C. Wolff Meinke, S. T. Knick, B. C. Wales. 2003. A prototype regional assessment of habitats for species of conservation concern in the Great Basin Ecoregion and State of Nevada. Version 1.1: 8-14 (Sept. 2003). Unpublished report on file at USDA Forest Service, Pacific Northwest Research Station, 1401 Gekeler Lane, La Grande, OR 97850.

<sup>83</sup> Personal comm., Aaron Holmes, PRBO Conservation Science, July 23, 2004.

<sup>84</sup> Knick, S. T., D. S. Dobkin, J. T. Rotenberry, et al. 2003. Teetering on the edge or too late? Conservation and research issues for avifauna of sagebrush habitats. Condor 105(4): 611-634.

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